"The positive impact of technology in translation"

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Abstract

It is widely known that translators play a key role in the growing market for intercultural technical communication and it is already a fact that technology can assist them in several areas of their work. However, the use of technology in real translation working environments has not been developed to the fullest. Through this tiny research from the wide field of technology's impact in translation, I aim to address to the issue of how the available technology tools can best be used to enhance the translators' job and increase their efficiency without compromising their creativity or lowering the required quality of their products.

This paper attempts to clarify the role technology plays in the translation profession, focusing mainly on looking at the positive impact of technology, despite of many questions and doubts. Some of us have embraced technology with a positive attitude as a new way of living and working, while others are skeptical and hesitate to accept a present where machines have already invaded our privacy. Regardless all the criticism, the fact is that all sectors of society are experiencing a series of ongoing changes due to technology. Needless to say, translation, as part of society, is inevitably being affected too by this global technology. Translation is both an industrial product and process, and its methods have to adapt to the new industry requirements. In this context, this paper suggests that translation professionals have to address these changes positively and accept that technology and computers are our friends and not our enemies.

Keywords: *computer-aided translation, translation management, electronic dictionaries, machine translation, useful software, translation memory.*

Introduction

Over the years, translation has gone under continuous evolution and has seen significant changes brought about by the advent of new technologies. Centuries ago the only companions of a translator were ink, quill pens and

paper. Since early writing was also considered an art, calligraphy was paid much attention to, which eventually would lead to a long time to draft one or two pages. Even though later the invention of the pencil eased some of the pains by allowing the text to be more easily erased and overwritten, it was not until the development of the typewriter that a tool caused such great impact.

Although computers became common in the late 1970s, in Albania they became popular after the 1990s, and nowadays they have become an indispensable part of everyone's work, including here translators. However, computers themselves have evolved immensely and have consequently brought innovation to the translation process by introducing new electronic tools and software which on the one hand facilitate the translation process, and on the other hand are seen as an enemy to what the professional translation process involves.

The latest technology has taken computers to such a level that many people have started guessing whether human work will soon be replaced by computers. The fact is that nowadays we are living a life which is not conceived anymore without the presence of technology, since it has become present in every aspect of our lives to that extent that some people consider it as an invasion, while others make the best of it.

Since technology is now an undeniable part of our lives and work, it is of great importance to highlight the positive aspects and impact of technology in translation and find a way how translators can best use it in reaching to the final product of their work. Technology can be seen positively through considering some of the technological tools which are becoming widely used not only by translators in their daily work but also from all the people worldwide who need to transfer words, phrases or sentences from one language into another for their own specific purposes.

From hardcopy to electronic version

Electronic dictionaries and online sources
When referring to translation, dictionaries are maybe the most important thing that a translator should absolutely possess. Needless to say, many years ago dictionaries could be provided only in print and you had to go through hundreds of pages in order to find the word you were looking for. In addition to this, because of their high volume, dictionaries are not suitable to be taken anywhere you go and consequently may be out of reach at certain moments when you need to access them. For this reason, electronic and online dictionaries are considered to be one of the most

helpful software for translators nowadays. A computer-based dictionary, for instance, can be stored in a fraction of a computer disk, saving you a lot in terms of space. In addition, buying an electronic version tends to be less expensive than a hardcopy dictionary because there are fewer costs involved: no paper, no shipping, no ink, etc. Despite the fact that savings in terms of money may not be very significant, what is most important is that there will certainly be a key reduction in time spent doing research since computer dictionaries usually proceed automatically to the term you want to consult by simply typing the relevant word.

In addition to this, online dictionaries are now available for free all over the internet not only on your computer but also on your smart phones where they can be easily obtained through the applications provided. As the Internet becomes more and more popular, it is also easier to find online resources that one would otherwise have to buy in hardcopy. Nowadays, many dictionaries can be browsed online, saving time and money. The Merriam-Webster, for instance, allows users to check the meaning of any word in English, and it also contains idiomatic expressions and phrasal verbs. The online version is rather comprehensive and still at no cost. The 3rd edition of Oxford English Dictionary is available online via Oxford Dictionaries Online, as well as in print, but it is worth noting that the online version is updated every three months. Oxford Dictionaries Online also includes the New Oxford American Dictionary, Oxford Thesaurus of English, Oxford American Writer's Thesaurus and grammar and usage resources. Besides the monolingual dictionaries, the internet offers also bilingual dictionaries and dictionaries of specific terminology such as legal dictionary, medical dictionary, financial dictionary etc.

E-books, magazines, newspapers, articles

The translation process involves also a research process where the translator needs to consult and refer to different books, magazines, newspapers or articles in order to find the most suitable translation. Before being able to have access to Internet, people had to go libraries and sit for hours and sometimes for days to find the book or article that would be helpful to them in their translation process, or even buy the book or magazine in a bookshop where they couldn't be sure if they had made the right choice until they read the book. Nowadays most of the books are offered online to the e-readers and they can easily access the book they want only by clicking the title of the book in Google or downloading applications that offer books, magazines, newspapers online. This is a time-saving process for the translator who does not have to go to great lengths to find a specific term or phrase used in a specific context.

Some of the major book retailers and multiple third-party developers offer free (and in some third-party cases, premium paid) e-reader applications for the Mac and PC computers as well as for Android, iPad, iPhone, and Windows Phone devices to allow the reading of e-books and other documents independently of dedicated e-book devices. Some examples include apps for the Amazon Kindle, Barnes & Noble Nook, Kobo eReader, and Sony Reader.

US Libraries began providing free e-books to the public in 1998 through their web sites and associated services, although the e-books were primarily scholarly, technical or professional in nature, and could not be downloaded. In 2003, libraries began offering free downloadable popular fiction and non-fiction e-books to the public, launching an e-book lending model that worked much more successfully for public libraries. The number of library e-book distributors and lending models continued to increase over the next few years. From 2005 to 2008 libraries experienced 60% growth in e-book collections. The Internet Archive and Open Library offers over 6,000,000 fully accessible public domain e-books, according to (Small, 2000).

In July 2010, online bookseller Amazon.com reported sales of e-books for its proprietary Kindle outnumbered sales of hardcover books for the first time ever during the second quarter of 2010, saying it sold 140 e-books for every 100 hardcover books, including hardcovers for which there was no digital edition (Miller, 2010). By January 2011, e-book sales at Amazon had surpassed its paperback sales. In the overall US market, paperback book sales are still much larger than either hardcover or e-book; the American Publishing Association estimated e-books represented 8.5% of sales as of mid-2010, up from 3% a year before. At the end of the first quarter of 2012, e-book sales in the United States surpassed hardcover book sales for the first time.

Computer-assisted translation tools

Computer-assisted translation (CAT) tools are computer software packages aimed at facilitating translation by creating the so-called translation memories (TMs) containing the choices made by the translator himself (Bowker, 2002). When a CAT tool is used, the source document, written in a source language, is segmented – a segment can be any part of a text, but it is usually a sentence ending in a full stop. Each source segment, then, is supposed to be matched with a target segment. When no previous match is found in the TM, the translator is prompted to fill in a

blank target segment with the respective translation. After the translation is entered, a translation unit is created containing the source segment and the target segment, along with source and target language information and other optional data, such the author's name. This translation unit is added to the translation memory.

A CAT tool further reduces any chances of errors by saving the translated segments along with the source phrase. A translator can easily access any of the translated segments at any given time to ensure that the segment has been translated adequately. Computer-assisted translation tool has been developed to allow the translator to be able to quickly search and alter-if needed- a particular segment of the text. It has been programmed to assist the translator with the revision in a timely manner. A computer-assisted translations tool can provide with much needed assistance when translating texts of considerable sizes. It effectively aids the translator in the processes involving correct use of terminology, maintaining consistency and proof reading.

Another advantage in using CAT tools to remember previous choices is style consistency. Good writers usually learn that repeating the same word often and often is bad style. They learn to use synonymous as often as possible and the mere thought of repeating the same word in the same sentence can be a nightmare. However, there are cases in which a word cannot be replaced with another because it may lead to misunderstandings. At times it happens that the translator is required to translate content which is highly technical in nature. In such cases, or otherwise, complying with a given list of specific terminologies to be used accurately in the translated document can increase the work load for the translator. Going back and forth to the provided list to tally your document with the given list of terminologies can also be quite time consuming. Computer-assisted translation tool can be programmed to automatically identify any of the places in the document where a specific terminology can be used suitably. Computer-assisted translation tool has added greatly to the efficiency of translation process while ensuring the availability of quality translation. It is an essential tool for both translators and buyers of translation services.

Machine translation

In order not to lead to confusion, the difference between computer-assisted translation and machine translation should be noted. As explained above, CAT tools are used to provide suggestions based on the previous work done and stored by the translator himself. Machine translation, in turn, is a

process that involves the use of automatically translation of words or sentences into a language other than the source.

Although some arise the question why there are still human translators when a machine can automatically do the job, the fact is that despite all the billions of dollars invested in artificial intelligence, no computer software has ever succeeded in translating complex documents containing slang, abstract language and words the meaning of which will depend on an intricate context (Hutchins, 2010). Accordingly, it has been very important for professional translators to make it perfectly clear they do not use automatic translation. Even people with not much linguistic knowledge will recognise that software such as Systran will hardly provide them with a correct and idiomatic translation. However, there are some advantages that machine translation has against human translation, which can be used sometimes with a positive impact during the translation process.

The rate of machine translation is exponentially faster than that of human translation. The average human translator can translate around 2,000 words a day. Multiple translators can be assigned to a given project to increase that output, but it pales in comparison to machine translation. Machine translation can generate thousands of words each minute. Although the output of machine translation is not in its final useable form, but in certain scenarios it can be quite useful, but still not in professional ones.

Even when adding a post-editing step, machine translation takes a fraction of the time that human translation takes. In addition to having a lower cost than human translation, machine translation can memorize key terms and phrases that are used within a given industry. However machine translation is simply not at a point where it can create perfectly accurate translations on a regular basis. The technology has improved drastically in the past 10 years, but it is certainly still a work in progress. Therefore, even after editing, the meaning from the original document will not be 100% accurate and could be suitable for use only in specific situations rather than professional ones.

The most commonly known to the public, Google Translate is a free multilingual statistical machine translation service provided by Google to translate text, speech, images, or real-time video from one language into another. As of May 2016, (Turovsky, 2016) Google Translate supports 103 languages at various levels and serves over 200 million people daily. In ten years of Google translate, there are more than 500 million people using Google Translate. The most common translations are between English and Spanish, Arabic, Russian, Portuguese and Indonesian. According to

statistics published by Google, people translate more than 100 billion words a day through Google translate.

Useful software

Voice and Speech recognition
The recent technology has developed several software packages that allow computer users to dictate texts instead of typing them on the keyboard. Voice recognition software is a revolutionary alternative for those who, for any reasons, do not want or cannot use the keyboard any longer. In addition, everyone possessing a Smartphone has automatically a voice recognition application which can be really helpful not only during translation but especially interpretation. One of the most commonly used speech recognition software is Dragon NaturallySpeaking, the world's best-selling speech recognition software (Baker, 1975).

Since microphone sensitivity may play a role in hindering voice recognition effectiveness, the ideal scenario includes a high-fidelity microphone, total absence of noise, and a clear and steady pronunciation. The translator simply "speaks" the translation out loud into a headset microphone and lets the computer handle transcription, control and navigation. So the translator is essential recording a sight translation. Here are some of the many advantages of voice recognition in translation:

- You are freed from the time lag imposed by the keyboard. The physical act of typing and jumping back and forth with your eyes from source document to target computer screen – or even within text and dialog boxes on screen when using TM tools – can be very costly to your thought process.
- You are freed from the unnecessary strains of typing which include not only fatigue and potential injury to fingers, wrists, neck and back in the long run, but the cost of posture distortion from having to sit for hours every single work day. By contrast the only equipment you use in dictation is a very thin, lightweight digital headset that you might even forget you have it on.
- Voice recognition allows you to automate every interaction you have with your computer and still work with TM tools. So you can still use all the tricks and shortcuts and macros and TM tools you use now, and you can also edit and revise text, but you just say them out loud instead of type them and the computer executes them for you automatically.

- You can make a lot more money. An accomplished dictating translator working in a very familiar field can produce 1,500 – 3,000 words per hour. By using dictation you can increase your output – and your income – by around fourfold. This is one of the very many reasons that dictating translators very rarely complain about their incomes.

However, one must not forget that, if the professional-quality voice-recognition software is available in your target language the dictated translations are still drafts that require revision and editing and high-output dictation only works in fields and language pairs you know exceedingly well.

OCR

An optical character recognition (OCR) software program, as its name implies, converts image files into text files by optically recognising alphabetic characters. It is particularly useful when the translator receives a file that is a digital picture of newspaper page, for instance. The OCR software (Alcina, 2008) scans the image file (which could be a JPG, a BMP or a PDF file created from an image, among other formats), identifies the characters, words and sentences and copies them into a text file. However, as it occurs with voice recognition, OCR may not function properly unless in an ideal scenario: the font in the image file must not be too small or unclear nor can there be any text overlapping.

Usually, the OCR program will allow the user to review the operation by identifying a few potentially incorrect words transposed to the text document and comparing them to the corresponding part of the image file. OCR software also usually contains a built-in dictionary in order to validate the program choices. Whenever the scanning of the image file results in an unknown word, the user is prompted to validate the choice, as there could have been an error. .

Needless to say, this software provides a great help for translators who have to deal with translation of different images incorporated into the text. It is worth noting that until a few years ago, these images have been carried into the target language without providing any translation for them, which consequently causes a lack of understanding for the reader.

Microsoft Word

Microsoft Word is a word processor developed by Microsoft which was first released on October 25, 1983 and it has been obviously developed with time. Needles to say it has made translators' lives much easier and

they do not have to go to any lengths to find useful software to make their work more effective. Microsoft Word for Windows is arguably the most widely used word processor, and this is partly due to the fact that it is very intuitive and easy to use – you just launch it and start typing. However, Word is a very powerful application with countless features that most users never take advantage of. One of them is the so-called AutoCorrect, by means of which typing frequently repeated terms may be prevented.

Another element worth mentioning is the Word's glossary function. Whenever the software finds a word that is not in its glossary, which is a possible typo, it underlines the word in red, and the user, by right-clicking on the word, opens a context menu with similar words, one of which might be the actual word he wanted to use. This is specifically useful when the translator is unsure of the spelling of a given word but does not want to lose time by looking up a dictionary.

The internet as a corpus

Until not very long ago, searching for information on the Internet always gave you a feeling that you might have been missing some information published elsewhere. Now this has all changed with the development of the so-called search engines where you can actually search inside virtually any web site. It is as if you could assemble all your old books and instantly find out how many times a given term was used, in which books, in which pages, and in which context – that is, next to what other terms and sentences (O'Hagan, 2013). Google is currently the most popular search engine, where all you need to do is type the word or phrase of what you are looking for and thousands of pages will appear on the screen in a few seconds. These search engines are even improving the ability of ranking websites according to relevance. Google, for instance, has been developed to take specific patterns and information into account to present the most relevant information at the top of your query results.

Obviously translators have realised the potential benefits of such search engines. The Internet is not just a tool by which dictionaries and glossaries may be searched for specific entries to be translated or explained; translators can enter any term and find out how it is actually used in the language.

The translator may be reluctant between two different choices about which specific word or phrase is most commonly used. For instance, the verbs 'do' and 'make' in Albanian mean the same 'bëj' but in English they form different collocations. This will lead an Albanian speaker to be unsure

about whether it is more common to say "do a mistake" or "make a mistake." A simple query on Google gives the hint: "make a mistake" results in 253 million web pages; "do a mistake", in turn, results in fewer web pages, mainly opposed to 'make a mistake'.

The fact that there are web pages containing uncommon phrases in English shows how unreliable the Internet may be as a source of knowledge. Fortunately, Google tends to present reliable websites at the top. Nevertheless, a translator should not entirely trust a machine. Checking the websites listed in search results is essential to verify the adequacy of the information. Search engines prove no exception to the rule that every source of information should be looked upon with caution. However, when correctly used, they are arguably today's translator's best friend.

Bringing translators closer through Internet

Technology advances, most notably the Internet, have not only helped translators do their job faster and more consistently; they have actually brought together translators who live very far away from each other. In the early days, translators were able to meet up and discuss their work only by means of conferences and summits. Nowadays, it has become increasingly easy to contact fellow translators quite instantly in order to solve terminology queries when reference works seem not to suffice (Cronin, 2013). This allows translators to talk to each other and share their opinions, possibly leading to solving such query.

Nowadays, there are messaging software programs such as WhatsApp, Messenger, and Skype, which allow instant communication, both text- and voice-based. Different other social networks can be considered also helpful such as LinkedIn or even Facebook to connect easily with different translators worldwide. Nowadays people sharing the same profession create their own groups or the so-called mailing lists which link a group of people together with common interests (Kenny & Doherty, 2014). If you belong to a mailing list you can receive regular messages posted to that list via email. By sending a message to a mailing list, a translator may potentially reach numerous other professionals subscribed to the same list and receive responses from all of them, responses which will also be available for the other subscribers. Over time, the list itself constitutes archives that become a compendium of information on how translation problems are solved and of the processes involved.

Conclusion

The translation process has evolved with time and so has technology. Together translation and technology have tried to adapt to one another and overcome changes over the years. Whether by means of translation memory software, electronic dictionaries or voice recognition, translators are now able to speed up their work and make it more effective and efficient. This increase is closely related to the use of technology applied to translation.

It could be claimed that the resources available to the translator through information technology imply a change in the relationship between the translator and the text, that is to say, a new way of translating, but this does not mean that the result is a new profession. Translating with the help of the computer is definitely not the same as working exclusively on paper and with paper products such as conventional dictionaries, because computer tools provide us with a relationship to the text which is much more flexible than a purely lineal reading. Furthermore, the Internet with its universal access to information and instant communication between users has created a physical and geographical freedom for translators, which was inconceivable in the past. We share the conviction that this type of translation has not become a new profession, but the changes are here to stay and will continue to evolve. Translators need to see the positive aspect of technology and accept the new technologies and learn how to use them to their maximum potential as a means to increased productivity and quality improvement.

References

Alcina, A. (2008). Translation technologies: Scope, tools and resources. Target, 20(1), 79–102.

Arnold, D., Balkan, L., Meijer, S., Humphreys, R., & Sadler, L. (1996). Machine translation: An introductory guide. Oxford, UK: Blackwell.

Baker, James K. (1975). "The Dragon System - An Overview". IEEE Transactions on Acoustics, Speech, and Signal Processing 23 (1): 24–29

Bowker, L. (2002). Computer-aided translation technology: A practical introduction. Ottawa, Canada: University of Ottawa Press.

Christensen, T., & Schjoldager, A. (2010). Translation-memory (TM) research: What do we know and how do we know it. Hermes— Journal of Language and Communication Studies, 44, 89–101.

Cronin, M. (2013). Translation and globalization. In C. Millán & F. Bartrina (Eds.), The Routledge handbook of translation studies (pp. 491–502). London, UK: Routledge.

Doherty, S., O'Brien, S., & Carl, M. (2010). Eye tracking as an MT evaluation technique. Machine Translation, 24(1), 1–13.

Doris Small. "E-books in libraries: some early experiences and reactions." Searcher 8.9 (2000): 63–5.

Hutchins, W. (2010). Machine translation: A concise history. Journal of Translation Studies, 13(1–2), 29–70.

Kenny, D., & Doherty, S. (2014). Statistical machine translation in the translation curriculum: Overcoming obstacles and empowering translators. The Interpreter and Translator Trainer, 8(2), 276–294.

"Merriam-Webster Dictionary". Encyclopædia Britannica Online. 2015. Retrieved April 24, 2016. http://www.merriam-webster.com/

Miller C. C, "E-Books Top Hardcovers at Amazon". New York Times. 2010-07-19. Retrieved March 20, 2016.

O'Hagan, M. (2013). The impact of new technologies on translation studies: A technological turn? In C. Millán & F. Bartrina (Eds.), The Routledge handbook of translation studies (pp. 503–518). London, UK: Routledge.

The New Oxford Dictionary of English, 2001, Oxford University Press, Ed. Judy Pearsall. http://www.oxforddictionaries.com/

Turovsky, B. (2016, April 28). Ten years of Google Translate. Retrieved from: https://googleblog.blogspot.al/2016/04/ten-years-of-google-translate.html